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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ANTHONY, JOSEPH DAVID

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 11/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/578,420

Applicant(s)

WEFERLIN, NORBET

Examiner

Joseph D. Anthony

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 14-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-13, drawn to a process for the production of (metal) salts of alkylphosphonous acids, classified in class 562, subclass 8.
 - II. Claims 14-18, drawn to the use of a (metal) salt of an alkylphosphonous acid, classified in class 252, subclass 609.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and process of using the product. The use as claimed cannot be practiced with a materially different product. Since the product is not allowable, restriction is proper between said method of making and method of using.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.
5. During a telephone conversation with Anthony Bisulca (Registration No. 40,913) on 10/27/03 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-13. Affirmation of this election must be made by applicant in replying

to this Office action. Claims 14-18 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Priority

7. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 05/25/99. It is noted, however, that applicant has not filed a certified copy of said German application 199 23 743 as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 112

8. Claims 4-5 recites the limitation "wherein the organic solvents employed are/is . . .". There is insufficient antecedent basis for this limitation in independent claim 1 from which these claims depend.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. For the following prior-art rejections and obvious type double patenting rejections the broadest reasonable interpretation of applicant's pending claims is being used. Applicant's elected process of making claims 1-13 use the open claim language of "comprises" which directly opens up the scope of the claimed process to additional method steps both before the production of the alkylphosphonous acids and after the production of alkylphosphonous acids. Furthermore it must be remembered that the claims are drawn to a process of making alkylphosphonous acids and not to alkylphosphonous acids themselves. This fact combined with wide open claim language of all claims 1-13 does not in any way limit or exclude a process that produces other organo phosphorus type compounds containing acid/salts even when only a minor amount of alkylphosphonous acid salt is produced.

12. Claims 1-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Weferling et al. U.S. Patent Number 5,973,194

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Weferling et al teaches and claims a process for preparing dialkylphosphinate salts. The process requires a first step a) wherein elemental yellow phosphorus is reacted with an alkyl halide in the presence of a hydroxide to form a mixture of alkylphosphonous acid, phosphonous acid and hypophosphonous acid. Subsequent steps b) and c) are used to make the dialkylphosphinate salts from said mixture, see abstract and claims. Applicant's claims are deemed to be anticipated over Examples 1-3 after step a) wherein a large mol % of methylphosphonous acid is made, and after step c) wherein a minor amount of the sodium salt of methylphosphonous acid is produced.

13. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weferling et al. U.S. Patent Number 6,011,172.

Weferling et al teaches a process for preparing the alkali metal salts and/or alkaline earth metal salts of alkylphosphonous acids and dialkylphosphinic acids by reacting elemental yellow phosphorous with alkyl halides in the presence of

an aqueous hydroxide solution, see the abstract, column 2, lines 26-29, examples, and claims.

Weferling et al differs from applicant's claimed invention only in that there is no direct teaching (i.e. by way of an example) to where the disclosed process actually produces alkylphosphonous acid salts instead of dialkylphosphinic acid salts. Nevertheless applicant's invention is deemed to be highly obvious over the disclosure of Weferling et al since the disclosed process steps, and the process steps used in the examples of the patent, are identical to applicant's claimed process steps. Furthermore, the preferred molar ratio of yellow phosphorous to alkyl halide, and yellow phosphorous to hydroxide is identical to applicant's claimed molar ratio of said reactants! As such, applicant's claimed process is deemed to be directly encompassed by the patent's taught and claimed process steps. The fact that applicant's claim 1 has the hydroxide component modified by the word "solid" is deemed to be irrelevant, since a look at the examples in applicant's application clearly show that the hydroxide component is added as an aqueous hydroxide solution to the reaction mixture. The open claim language of applicant's claims allows for the solid hydroxide to be added to water prior to its addition to the reaction mixture.

14. Claims 1-4, 6-8, and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's cited article entitled; " SUPERBASE-INDUCED GENERATION OF PHOSPHIDE AND PHOSPHINITE IONS AS APPLIED IN ORGANIC

SYNTHESIS". The article clearly teaches the reaction of red phosphorous or white (i.e. yellow) phosphorous with organyl halides, alkenes and acetylenes in a superbasic system comprising alkali metal hydroxide in a solvent such as DMSO or under phase-transfer conditions, see page 271. On page 272, elemental phosphorous is reacted with an alkyl (ethyl, propyl, butyl etc.) halide in a multi-phase system in combination with a phase transfer catalyst when an aqueous potassium hydroxide solution comprising THF (which is an ether) is added to said reactant. The references' said reactants and process steps are deemed to directly read on applicant's claimed reactants and process steps even though the resulting product is different than applicant's resulting product. But since applicant is not claiming a product but rather a process of making, it is held by the examiner that applicant's claimed process is obvious over the process taught by the reference. In other words, applicant's claimed process is so broad in scope that it is deemed to encompass the production of the products taught by the reference in addition to the production of alkylphosphonous acid salts. Furthermore, it also seems that the reference uses red phosphorous in the examples but its substitution by white (i.e. yellow) phosphorous is directly suggested by the reference and would thus have been obvious.

Double Patenting

15. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA

1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

16. Claims 1-13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 5,973,194. Although the conflicting claims are not identical, they are not patentably distinct from each other because applicant's invention is deemed to be a subset of the patented invention.

17. Claims 1-13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim1-13 of U.S. Patent No. 6,011,172. Although the conflicting claims are not identical, they are not patentably distinct from each other because applicant's invention is deemed encompassed by the process steps of the patented invention.

18. Claims 1-13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-27 of U.S. Patent No. 6,583,315. Although the conflicting claims are not identical, they are not patentably distinct from each other because applicant's invention is deemed to be a subset of the patented invention.

19. Claims 1-13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1-16 of U.S. Patent No. 6,090,967. Although the conflicting claims are not identical, they are not patentably distinct from each other because applicant's invention is deemed to be a subset of the patented invention.

20. Claims 1-13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-27 of U.S. Patent No. 6,090,968. Although the conflicting claims are not identical, they are not patentably distinct from each other because applicant's invention is deemed to be a subset of the patented invention.

21. Claims 1-13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1-41 of U.S. Patent No. 6,359,171. Although the conflicting claims are not identical, they are not patentably distinct from each other because applicant's invention is deemed to be a subset of the patented invention.

22. Claims 1-13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-37 of U.S. Patent No. 6,278,012. Although the conflicting claims are not identical, they are not patentably

distinct from each other because applicant's invention is deemed to be a subset of the patented invention.

23. Applicant should submit a new power of attorney to make sure all agents who are prosecuting this application are officially made of record.

Prior-Art Cited But Not Applied

24. Any prior-art reference which is cited on FORM PTO-892 but not applied, is cited only to show the general state of the prior-art at the time of applicant's invention.

Examiner Information

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Joseph D. Anthony whose telephone number is (703) 308-0446 until 12/04/03; after 12/04/03 my new telephone number will be (571) 272-1117. This examiner can normally be reached on Monday through Thursday from 7:35 a.m. to 6:00 p.m. in the eastern time zone. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (703) 306-2777. The centralized FAX machine number is (703) 872-9306. All other papers received by FAX will be treated as Official communications and cannot be immediately handled by the Examiner. Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-

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0651. The receptionist is located on the 8th floor of Crystal Plaza 3 (e.g. CP-3) and will be the welcome point for all visitors to the building.



Joseph D. Anthony
Primary Patent Examiner
Art Unit 1714

11/04/03